



FULBRIGHT U.S. – ASEAN VISITING SCHOLARS

Abstract Book

COMPILATION OF SCHOLARS' RESEARCH SUMMARIES
2013-2016

FULBRIGHT



CONTENTS

pg.1

REMARKS

by Daniel Shields
Chargé d'affaires
U.S. Mission to ASEAN

pg.2

REMARKS

by H.E. Vongthep Arthakaivalvatee
Deputy Secretary-General of ASEAN
for ASEAN Socio-Cultural Community

pg.3-41

ABSTRACT COMPILATION



**DANIEL SHIELDS
CHARGÉ D'AFFAIRES
U.S. MISSION TO ASEAN**

"The Fulbright Program is designed to increase mutual understanding between the people of the United States and the people of other nations."



With this goal in mind, the Fulbright U.S.-ASEAN Visiting Scholar program was launched in 2012 to deepen people-to-people engagement and to strengthen our educational ties around issues important to the ASEAN region. Since its inception, the program has sent almost 40 scholars to the United States. We continue to partner closely with ASEAN to further our mutual goal of a people-centered region.

2017 marks the 5th year of the Fulbright Program, the 40th anniversary of U.S. - ASEAN partnership, and the 50th anniversary of ASEAN. To celebrate this very special year and to

show our appreciation for Fulbright scholars' contributions to their communities and to ASEAN, we proudly present the Fulbright U.S. - ASEAN Visiting Scholars' Abstract Book.

With this book, we intend to share the research abstracts and findings of Fulbright scholars with ASEAN citizens and inspire them to think critically about shared challenges across the region.

The Fulbright Program connects people, nations and the world. Beyond pure academic research, the program goes a long way to foster people-to-people connections within ASEAN and between ASEAN and the United States. I hope that through this program, we will continue to encourage the emerging leaders of Southeast Asia – and many others working on a wide range of subjects – to create greater cohesion and integration in ASEAN, toward a better future for the ASEAN community.

I would like to thank the scholars for sharing their research summaries and making them accessible to everyone through this Abstract Book.

Daniel Shields



A portrait of H.E. Vongthep Arthakaivalvatee, a man with short dark hair and glasses, wearing a dark suit, white shirt, and a striped tie. He is standing in front of a light-colored wall with the ASEAN flag partially visible on the left.

H.E. VONGTHEP ARTHAKAIVALVATEE

Deputy Secretary-General of
ASEAN for ASEAN Socio-Cultural
Community

ASEAN SECRETARIAT

I congratulate the United States Mission to ASEAN for producing a compendium of research abstracts from the Fulbright U.S.- ASEAN Visiting Scholar Initiative.

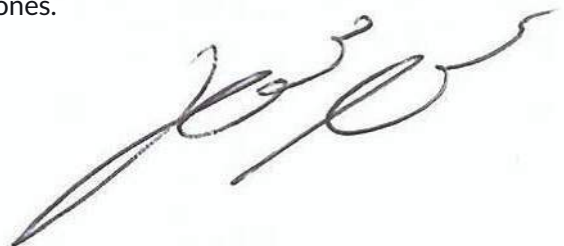
On its fifth year now, the initiative aims to deepen people-to-people engagement and strengthen educational ties between ASEAN and the United States. This project provides opportunity for ASEAN scholars to pursue studies on topics that are important to ASEAN as well as supportive of the ASEAN-U.S. relations.

ASEAN works towards a Community that is people-oriented and people-centered, vibrant and a socially responsible. ASEAN Community is about the future of our next generations as well as our commitment to achieve sustained growth and social cohesiveness.

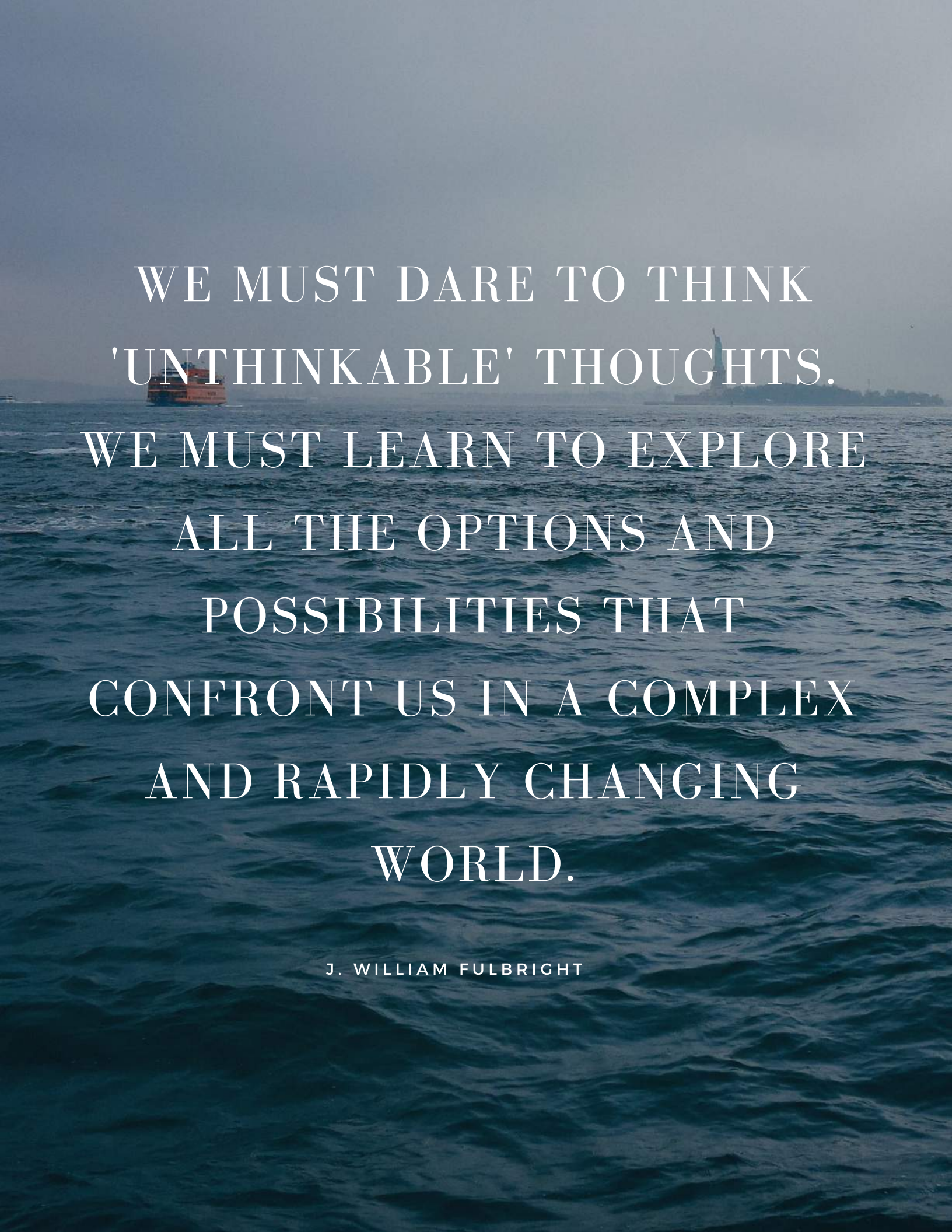
Our people must be able to benefit from the dynamics of this integration. There are many ways we can make this vision a reality. One of them is through engagement of young people and scholars and help them realize their intellectual pursuits through cooperative efforts such as this visiting scholar scheme between ASEAN and the U.S.

I congratulate the 40 scholars from all ten ASEAN Member States who have been awarded scholarships to pursue studies in the U.S. This publication documents the collaboration between ASEAN and American scholars. It amplifies the knowledge and experience they have acquired while benefitting a wider intellectual community and interested scholars.

As ASEAN commemorates 50 years of establishment this year, ASEAN-U.S. relations also turn 40. Let this compendium serve as token of these important milestones.



A handwritten signature in black ink, appearing to be 'Vongthep Arthakaivalvatee'.



WE MUST DARE TO THINK
'UNTHINKABLE' THOUGHTS.
WE MUST LEARN TO EXPLORE
ALL THE OPTIONS AND
POSSIBILITIES THAT
CONFRONT US IN A COMPLEX
AND RAPIDLY CHANGING
WORLD.

J. WILLIAM FULBRIGHT



Salwah Saim

Brunei Darussalam | 2013

Research Topic:
Challenges of the Impacts of Climate Change: The Case of Brunei

RESEARCH ABSTRACT

The use of non-renewable energy resources such as coal, oil and gas contributes to the carbon dioxide emissions and emissions of other pollutants. These compounds can cause detrimental effects on the atmosphere and climate. Spin-offs from these effects are prolonged heat waves, frantic rainfall, flooding and so forth. The main culprit behind this is the energy industry, followed by the mining and metal ore production industries. Governments all over the world are strategizing efforts to reduce carbon emissions by promoting clean energy resources such as renewables to offset the reliance on the non-renewable energy resources. This also includes promoting nuclear and biomass as alternatives. Brunei, as a country in the global community, is inevitably exposed to climate change and its impacts. The impacts of climate change in Brunei are mostly such as forest fires, floods and landslides. In past decades, Brunei experienced some unusual and extreme weather patterns. In my research, I investigated the challenges that climate change poses on Brunei, including direct and indirect impacts. I came up with a potential list of solutions and recommendations for improvement.

RESEARCH FINDINGS

Climate change cannot be stopped, but can be slowed down. Many efforts worldwide are being implemented to mitigate the increase in carbon emissions to slow down climate change. It is each country's responsibility to formulate low carbon policy while not putting the energy industry at stake. Brunei has set up several national programs and actions on mitigation and adaptation measures, which are carried out through environmental, economic and social activities by the government in collaboration with private stakeholders. Mitigation measures include promoting conservation and protection of forests, planting trees planting, and energy efficiency. Adaptation measures include coastal protection, water conservation, management programs, and floods mitigation projects. We need to look into the impacts of climate change in Brunei instead of just reacting when it happens. I organized my recommendations into six categories: setting up a national steering committee; introducing carbon tax policy; increasing climate change awareness and education; imposing stricter regulations and punishments; setting up donation bins; setting up a well prepared climate change toolkit.



Faisal Nurdin Idris



Indonesia | 2013

Research Topic:
Anti-human Trafficking in Indonesia,
Thailand and the United States

RESEARCH ABSTRACT

Human trafficking, universally described as modern-day slavery, has become a major concern in the past two decades. With growing recognition of the complexities of human trafficking, much work has been undertaken to deal with this issue. Through my research, I examined the significance of political institutions that support (or constrain) efforts to fight human trafficking. I focused on anti-trafficking movements in Indonesia, Thailand, and the United States, and analyzed the intersections between the movements and state intervention. I explored the different configurations of contention between state and society in anti-trafficking policies. I found that different patterns of political organizations and state structures in these countries inhibited or encouraged anti-trafficking efforts, resulting in various outcomes.

RESEARCH FINDINGS

The primary focus of my research was policy debate on human trafficking during the policy-making process, which ended in the creation of anti-trafficking legislation. I used three criteria to select the representativeness of policy debates: decisional system importance (including the presence of a public arena, legislature and bureaucracy); life cycle of the issue and time frame in which debates intensified in the policy arena; debate salience. I selected three debates from each country, which were all on the topic of trafficking in women and children: 2005-2007 debate in Indonesia, 2006-2008 debate in Thailand, 1998-2000 debate in the United States. The dominant frame of the debates varied across the three countries. While human trafficking was framed as exploitive labor migration in Indonesia, in Thailand, prostitution emerged as the dominant frame. In the United States, the issue of trafficking was contested as a matter of human rights and prostitution. In Indonesia and Thailand, the role of non-state actors played a pivotal role in bridging NGOs and the government in anti-trafficking efforts, and in getting the human trafficking issue on the agenda in the early period following the adoption of the Trafficking Protocol in 2000.



Phouphet Kyophilavong

Lao PDR | 2013

Research Topic:
Transmission of U.S. Monetary Policy to
the ASEAN Economy

RESEARCH ABSTRACT

International transmission of U.S. monetary policy is playing an important role in macroeconomic fluctuations in ASEAN countries and it is gaining significant attention from researchers and policy makers. There exists wide debate over the extent of the transmission of U.S. monetary policy shocks to the rest of the global economy, especially to ASEAN country economies. Some argue that expansionary monetary policies can cause the depreciation of the local currency and increase domestic output in the short run. There is an array of literature on the effects of U.S. monetary policy on developed and developing countries. However, those studies focus primarily on Latin American and emerging markets' impacts on the rest of the global economy. The impact of U.S. monetary policy gains little attention. The aim of my research was to investigate the impact of U.S. monetary policy on the ASEAN Economy.

RESEARCH FINDINGS

I developed a vector autoregression (VAR) model to estimate the transmission of U.S. monetary policy to the ASEAN's economy, following econometrician Christopher Sims' work in 1980 and 1992. I used quarterly data from 1986 to 2010; all logarithmic except for interest rates, which were in percentage points and obtained from IMF International Financial Statistics (IFS). The findings from the VAR model showed a small impact of U.S. monetary policy on the ASEAN economy. With the exception of Singapore, the model did not find a significant impact of U.S. monetary policy on any other ASEAN country. The main reason for the small impact is likely weak economic, financial, trade and investment links between ASEAN and the U.S. economy. My paper was published in Lao Journal of Economics and Management, the leading economics and management journal in the Lao PDR. I also presented my findings in several conferences in Laos.



Hla Soe Tint

Myanmar | 2013

Research Topic:
Male Involvement in Women's
Reproductive Health Issues in Rural
Areas of Upper Myanmar

RESEARCH ABSTRACT

70% of Myanmar's population reside in rural areas. People in rural communities adhere to traditional values and customs more so than those in urban areas. As primary income earners, men tend to be the decision makers when it comes to family expenditures, which includes reproductive health (RH) related expenses. Hence, male involvement in women's RH is significant. However, current understanding of this involvement is limited, and too inadequate to influence RH policy and program formulation. Through my research, I focused on closing this knowledge gap. I conducted a cross-sectional, community-based, analytic study in selected rural settings of the Mandalay Region. I conceptualized that male involvement in women's RH is influenced by multiple factors: knowledge about RH services (including source of the knowledge); attitude towards RH services; power relations in the family; characteristics of the couple; partner's decision-making autonomy in family affairs. I investigated the interactions between these factors and their influence on male involvement in women's RH.

RESEARCH FINDINGS

Men described various sources of reproductive health (RH) services and information, while majority of women received RH information from MW. Woman had more knowledge of maternal health care services and contraception, and had more positive attitude towards RH care compared to men. 69% of men were fairly involved and 16% highly involved in women's RH issues. 66% of couples fairly utilized the RH services and 20% utilized them highly. Men were more likely to be fairly involved in woman's RH if they were the most powerful person in the family and if their wives had good attitudes towards RH care. Men were more likely to highly involved if they earned >50,000 Kyats per month, if they were the most powerful person in the family, if their wives had good attitudes towards RH care, and if their wives had good knowledge of maternal health care. When women had more autonomy, their husbands were less likely to be involved in RH issues. A highly significant positive association between male involvement and utilization of RH services was found. It was concluded that an increase in male involvement in women's RH issues leads to an increase in utilization of RH services.



Charmaine Misalucha-Willoughby

Philippines | 2013

Research Topic:
How to Sell Ideas in International
Relations: the United States, Southeast
Asia, and the War on Terror

RESEARCH ABSTRACT

The U.S.-led campaign on the War on Terror initially involved the invasion of Afghanistan. United States' objective was to liberate the country from the al-Qaeda-sponsored Taliban regime. During this stage, the United States received sympathy from its international partners. For its campaign to be effective and successful, the United States needed a coalition of like-minded states to join the campaign. A lot depended on the United States' ability to communicate to others what the War on Terror stood for and what it stood against, and ultimately "sell" the idea of the War on Terror. Through my research, I analyzed how the United States was able to accomplish this.

RESEARCH FINDINGS

My research posed the following question: how did the United States advance its campaign on the War on Terror? I identified the various strategies that the United States used to ensure the necessity and sustainability of the War on Terror. I also examined how the United States leveraged its close relationship with ASEAN to overcome disagreements and infuse fresh energy. The output of my research became a part of a larger project involving U.S. relations with ASEAN and Japan.



Chatchawan Jantasuriyarat

Thailand | 2013

Research Topic:
Dissecting Rice and Rice Blast Fungus Interaction

RESEARCH ABSTRACT

Rice is the most important crop, feeding more than half of the world's population. However, biotic stress takes a serious toll on worldwide rice production. Blast disease is one the most devastating diseases affecting rice production around the world. It is extremely difficult to control. It causes significant crop losses equivalent to an amount that feeds 60 million people annually. The significant economic losses caused by this disease have led to efforts to identify and characterize the resistance gene in rice. Thailand is the world's second largest exporter of rice, yet outbreaks of blast disease still occur often. Jao Hom Nin (JHN) is a Thai non-glutinous rice variety that has shown broad spectrum resistance to blast fungus. Cloning and biochemical study of this gene will help us understand the mechanism of how the rice plant protects itself from the fungus and will allow us to protect our rice crops from this disease. The information obtained from my study will be used to generate the DNA marker for the resistance rice breeding program and will be used for the genetic manipulation of rice defense mechanisms to develop novel resistance rice varieties. Thai farmers as well as neighboring countries will benefit from it and it will help improve the living quality of farmers whose main income is from rice production.

RESEARCH FINDINGS

The Thai rice variety Jao Hom Nin (JHN) showed broad-spectrum resistance against Thai rice blast isolates. A quantitative trait locus (QTL) is a section of DNA (the locus) which correlates with variation in a phenotype (the quantitative trait). Two QTLs for blast resistance in JHN were reported on chromosome 1 (QTL1) and 11 (QTL11). I successfully produced monogenic lines of QTL1 (QTL1-C) and QTL11 (QTL11-C) in the CO39 genetic background. Cluster analysis based on the disease reaction pattern of QTL1-C and QTL11-C, together with IRBLs, showed that those two monogenic lines were clustered with IRBLsh-S (Pish) and IRBL7-M (Pi7), respectively. The disease spectrum of JHN was found to be exactly attributed to the additive ones of both QTL1-C and QTL11-C. JHN showed broad spectrum resistance against Thai and Philippine rice blast isolates. I demonstrated that the combination of two resistance genes, Pish-J and Pi7-J, in JHN, with each controlling broad-spectrum resistance to rice blast disease, explains the high level of resistance. Thus, the combination of Pish and Pi7 can provide a practical scheme for breeding durable resistance in rice against rice blast disease.



Ly Phuong Nguyen



Vietnam | 2013

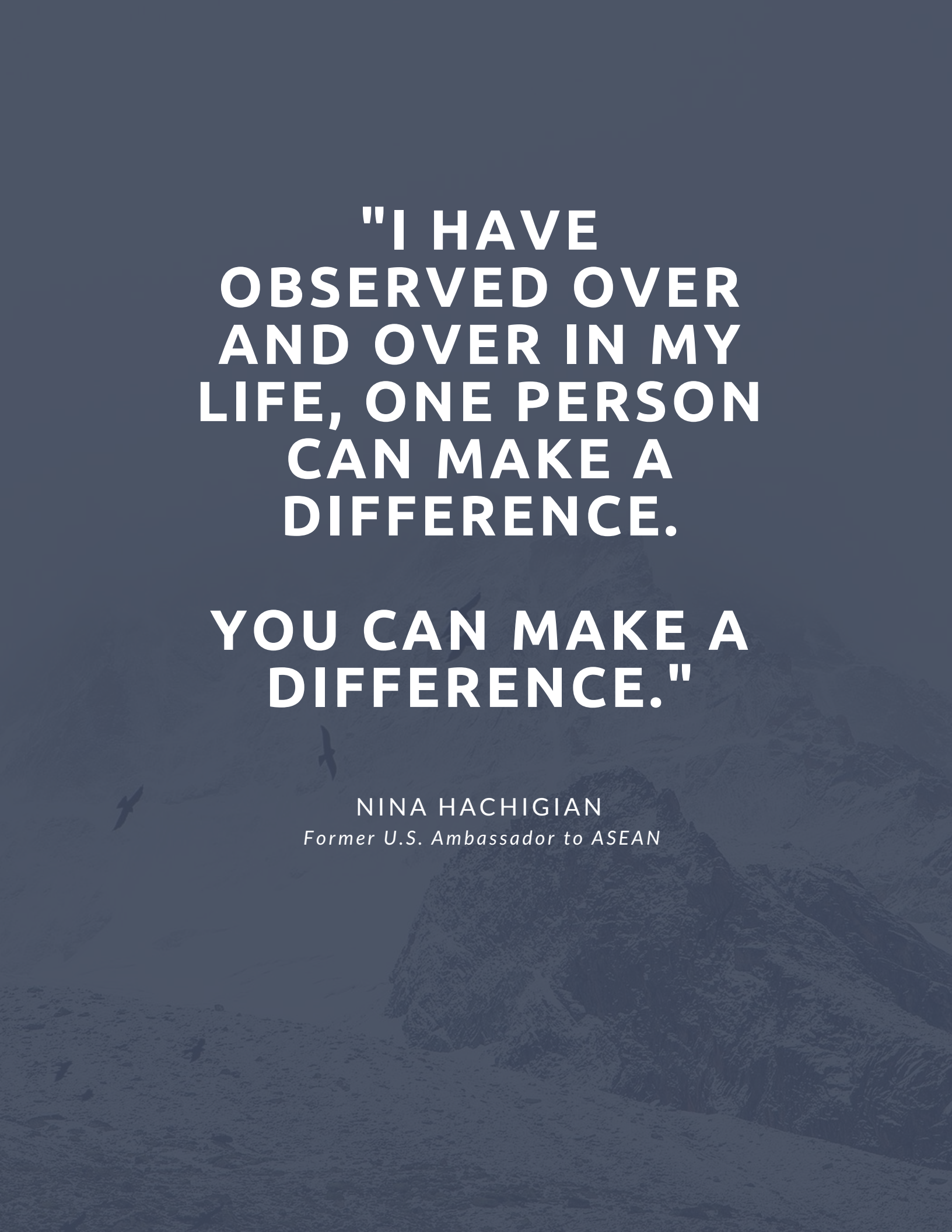
Research Topic:
The Deficiency of Regional Cooperation
in Southeast Asia amidst China's Rise: A
Gap in Regional States' Threat
Perceptions of China in the Case of the
South China Sea Disputes

RESEARCH ABSTRACT

In the post-Cold War era, renewed tensions between China and Southeast Asian claimants in the South China Sea (SCS) have brought this security issue to the forefront of regional attention. The SCS dispute is considered a test case for ASEAN's unity, and raises the question of whether this ASEAN can present a common ground and deepen the regional multilateralism to deal with the flashpoint in its own backyard. Unfortunately, despite self-promoting rhetoric of regional harmony and the launch of ASEAN Community in 2015 in the spirit of "One Vision, One Identity, One Community", member states have found it difficult to reach consensus to counter Beijing's militarization of the SCS. Through my research, I studied the discrepancy in ASEAN states' behaviors towards China's controversial actions in the SCS, treating threat perception as a variable. I posed the questions: How do ASEAN member countries perceive of China and the SCS issue? Which factors influence the forming, persistence and change in Southeast Asian states' threat/non-threat perception of China? How does the difference in regional countries' perception of China and the SCS dispute predispose their respective attitudes towards the critical issue? I undertook case studies in the Philippines, Vietnam and Malaysia, which all have direct involvement in the conflicting waters but display different patterns of behavior towards China in the SCS conflict.

RESEARCH FINDINGS

ASEAN members' reactions to the South China Sea (SCS) issue are not determined by China's ambiguous intentions and assertive attitude in the disputed waters per se; rather, they are a function of their interpretations of China and the SCS situation. Arguably, members states do not perceive China and its controversial policy in the disputed area to be equally threatening. The divergence of ASEAN members' perception of the Chinese challenge in the SCS stems from the unique historical experiences that individual Southeast Asian countries have had with China, and, in some cases, from particular domestic contexts. While Vietnam, the Philippines, Indonesia, and Singapore are fraught with anxiety about China's controversial moves in the SCS, Malaysia and Thailand view China through a more positive lens, thereby downplaying the perceived threat of the SCS dispute. As a results, ASEAN countries have different opinions as to how to deal with China on the SCS issue. Those feeling threatened by China and the escalating tensions in the contested area are inclined to engage China in multilateral processes of dispute resolution. By contrast, those that are more confident in their relations with China are reluctant to risk provoking their northern neighbour's reaction by internationalizing the SCS issue at the ASEAN forum, which China has long opposed.



**"I HAVE
OBSERVED OVER
AND OVER IN MY
LIFE, ONE PERSON
CAN MAKE A
DIFFERENCE.**

**YOU CAN MAKE A
DIFFERENCE."**

NINA HACHIGIAN

Former U.S. Ambassador to ASEAN



Sopheak Ray

Cambodia | 2014

Research Topic:
Development of Large Scale Waste Water
Treatment Using Micro-Algae

RESEARCH ABSTRACT

Micro-algae is as a potential solution to waste water treatment in cities. It can be easily grown in tropical climates and can treat waste water effectively within 3 days by removing ammonia, nitrate and phosphate with an efficiency of 99.8%, 66.7%, and 96.7%, respectively. Micro-algae plantation is typically done in batch mode and has never been used before for treating waste water in a continuous mode and in a large scale capacity. Through my study, I proposed a preliminary design for a continuous large scale waste water treatment plant that uses micro algae, with a targeted delivery capacity of 500,000 gallons/day.

RESEARCH FINDINGS

My research findings allows us to have the blueprint for constructing a large scale waste water treatment plant, which is applicable for any large city. This conceptual technology will allow us to meet the environmental water quality standard, to secure the water resource by treating the polluted water with bio-based treatment, and to contribute to bio-energy from harvesting micro-algae. This concept will be useful for major cities in Cambodia as well as other ASEAN members states, and will be help secure our inland-water resources.



Wahyu Pandoe

Indonesia | 2014

Research Topic:
Thermocline Depth Variation and Water Mass Analysis based on various CTD Data Measurements in Indonesian Waters

RESEARCH ABSTRACT

Ocean and climate observations are becoming a priority in Indonesia. El-Nino/La Nina, Indian Ocean Dipole (IOD), and Indonesian Through Flow (ITF) phenomena are linked to the ocean driven climate between Pacific and Indian Oceans, making them topics of interest. Much international research and collaboration is necessary for sustainable observation within this region. Long term and complete ocean observation is essential to describe the path of ITF from western Pacific into Indonesian internal waters, and out into the Indian Ocean. My research focused on water mass analysis in two regions: the western Pacific Ocean of northern Papua (up to southern Davao City of Philippines), and eastern Indian Ocean from west Sumatra to Sunda Strait. Data had been collected from more than 2000 conductivity-temperature-depth (CTD) data stations all over Indonesian waters and adjacent seas (Malaysia and Philippines), but only small portion of it had been analyzed. Through my research, I analyzed water mass and CTD data and correlated the thermocline variation with the low frequency signals in sea level variation.

RESEARCH FINDINGS

I studied the dominance of high salinity water - North Pacific Intermediate Water (NPIW) and South Pacific Intermediate Water (SPIW) - and how it alternates between El-Nino and Neutral/La-Nina conditions in the western Pacific Ocean north of Papua. Based on CTD data from 1992 to 2014, during the El-Nino period, surface water mass in north Papua seems to be dominated by high salinity SPIW, while during La-Nina or neutral conditions, the water mass is a mix between NPIW and SPIW. Next, I analyzed how far and which way those NPIW and NPSW flow into Indonesian waters, known as Indonesian through flow (ITF). In the eastern Indian Ocean, there is the presence of high/maximum salinity water in the thermocline layer between 80-120m depth from the equator down into the Sunda Strait. This is a possible indication of a consistent south-east flow of the intermediate water from the equator down into Sunda Strait, likely turning eastward along south Java. This would strengthen previous researchers' findings about the existence of the South Java Current flowing eastward during the presence of the Kelvin Wave generated in the equatorial Indian Ocean. Sustainable observations through international collaboration in Pacific and Indian Oceans are required for better understanding of ocean phenomena and climate rules in this region, and their impacts on other regions.



Zulkifli Hasan

Malaysia | 2014

Research Topic:
Regulatory Framework of Islamic Finance
in the United States: Issues and
Challenges

RESEARCH ABSTRACT

Islamic finance has emerged as an alternative to the commonly used conventional banking system. Since its establishment, the system has been slowly adapted into existing banking systems and has proven its effectiveness and sustainability both in a mixed legal environment and a secular legal jurisdiction. Despite the tremendous growth of Islamic finance globally, there are virtually no new or positive developments in the domestic United States Islamic finance scene. Numerous obstacles still exist, particularly legal issues and regulatory restrictions such as taxation law, constitutional conundrums, conflict of laws, the status of Shari'ah rulings, statutory interest, home mortgage interest deduction, liquidity, federal deposit insurance requirement, strict disclosure, interpretative approach, and anti-Shari'ah law. Unlike the United Kingdom, which facilitates the implementation of Islamic finance with a sound legal infrastructure, numerous challenges and legal uncertainties exist in the U.S. legal framework for Islamic finance. Through my research, I provided an overview of the state of Islamic finance in a secular legal environment, and explored its current regulatory framework by analyzing the inherent issues and challenges.

RESEARCH FINDINGS

I found numerous legal challenges to implementing Islamic finance in a secular legal environment such as the United States. Moreover, legal issues become even more complicated when cross border transactions and international laws are involved. The U.S. attitudes towards Islamic finance are reactive rather than pro-active. U.S. financial service regulators and supervisors take a positive effort to accommodate Islamic finance practices. U.S. regulators retain existing laws with slight adjustments whereby Islamic finance is regulated under the same framework as conventional finance. Islamic financial products and services are governed by the existing legislation applicable to conventional finance. Islamic financial services in the United States are often a result of strong grassroots demand in local service areas. Regulatory issues have not yet been tested on a large scale, and decisions as to whether a bank may offer an Islamic financial product are typically determined on a case-by-case basis.



Poe Poe

Myanmar | 2014

Research Topic:
Developing a Communicative Interactive
Skills Training Package for Mid-Level
Government Officials in Myanmar

RESEARCH ABSTRACT

The goal of my project was to develop Myanmar's human resources capacity. Ever since Myanmar initiated political and economic reforms, numerous dialogues, meetings, discussions, seminars, workshops and conferences have been held in virtually all sectors of the government. Myanmar government officials at various levels had to participate in these meetings and interact with regional and international organizations within and outside the country. However, the discussions were not as successful as they should have been due to lack of proficiency in communicative English, due to cultural differences, and due to different varieties of English being used between the two parties. As a solution, I developed a questionnaire for 100 Myanmar mid-level government officials from different ministries in order to determine their English language level and background, skills they needed in their international collaborations, difficulties they had in interacting with English speakers from different cultural backgrounds, and skills they needed to develop effective communication. Based on these findings, I developed an English language training package for mid-level government officials in Myanmar to enhance their communicative and interactive skills.

RESEARCH FINDINGS

According to my survey results, even though reading and writing were the most heavily used skills, respondents' primary need was to improve their social interaction skills, presentation skills, phone skills, and skills to participate effectively in discussions and meetings. I found the most significant obstacles as being lack of communicative competence due to absence of social and cultural knowledge, and unintelligibility due to differences in the varieties of English. Respondents also desired to improve their skills in writing reports, emails, faxes, notes, and presentations. To address all of these needs, I developed a 90-hour training package with three main components: English for Social interactions, English for Effective Professions, and English for Professional Writing. I devised activities in such a way that government officials would possess communicative competence but also cultural competence. So far, 150 mid-level government officials from the Ministry of Education have benefited from the training package. Moreover, Training the Trainers workshops on Intercultural Communication were conducted twice with the generous assistance of the U.S. Department of State, and the Intercultural Communication Course was initiated in the BA English programs across Myanmar.



Jay Batongbacal

Philippines | 2014

Research Topic:
U.S. Maritime Security Policies and
Resort to International Arbitration:
Impact on the Future of the South China
Sea Disputes

RESEARCH ABSTRACT

With the flare-up of the long-simmering South China Sea (SCS) disputes since 2009, culminating in the Philippines' initiation of arbitration proceedings under UNCLOS Annex VII against China, U.S. maritime security policies for the SCS have come under increasing scrutiny among the Southeast Asian claimants. Calls were made publicly and privately for more visible U.S. involvement to balance China's increasing assertiveness and expansion into the maritime domains of littoral states. My research examined the nature of U.S. interests in the SCS particularly from the standpoint of maritime security, by reviewing the historical record of U.S. foreign policy bearing on the SCS disputes. By understanding these interests, tracing their evolution across the decades, and considering their context, we can have a better understanding of the scope and parameters of U.S. maritime security policies in the SCS, especially in relation to the Philippines vs. China arbitration proceedings. This will, in turn, allow us to better understand the scope for flexibility and practical limits of any U.S. role in the SCS disputes.

RESEARCH FINDINGS

U.S. foreign policy for the SCS disputes exhibited remarkable consistency since the early 1930s. Its policy of neutrality with respect to claims to sovereignty over the islands was based on the assumption that the islands did not hold much strategic value, and were not of serious concern as long as they were neutral and did not interfere with navigational and overflight rights. In the 1970s, the Philippines succeeded in nudging U.S. policy slightly by securing a security guarantee for its ships and aircraft operating in potentially disputed waters, which it accomplished by holding hostage the negotiations for U.S. bases in the Philippines. This underscored the point that U.S. policy on the SCS was fundamentally tied to its maritime security interests in the region. Examination of subsequent events, particularly the period from 2012-2015, indicated that U.S. policy shifts were possible if developments posed a threat to such maritime security interests, particularly its unimpeded access to maritime space. This was proven by mid-2015 (after my research was concluded) as the United States did make an important shift in its policy toward the SCS, becoming more visible and proactive particularly through Freedom of Navigation Operations (FONOPs), and challenged China's excessive claims directed against U.S. ships and aircraft in addition to littoral States.



John Paul P. Cruz

Philippines | 2014

Research Topic:
Assessing Accessibility of Electoral
Systems for Voters with Disabilities in
the United States and the ASEAN Region
using CMDP Framework

RESEARCH ABSTRACT

ASEAN is in a unique position to shape the democratic landscape for people with disabilities in the region. At least 1 in 10 people in ASEAN experience some form of disability. The United Nations Convention on the Rights of Persons with Disabilities (CPRD) is the international human rights instrument that promotes and protects the rights of people with disabilities. Within only a decade, 10 of ASEAN member states have already signed and ratified the convention, which has been touted as a democratic success story. I conducted my research against this backdrop and explored how well ASEAN member states are ensuring that their citizens with disabilities are able to access their right to suffrage, which is one of the most basic tools in participating in democratic regimes. I assessed ASEAN in comparison with the United States under the Disability Policy (DisCo) framework, and explored the social, environmental, and institutional arrangements that have shaped the electoral system in the region. I probed into existing legislative mechanisms, level of support of national and local executives, state of budgetary support for disability-related election policies and programs, administrative and coordination capacity of stakeholders in election cycles, level of engagement of representatives of people with disabilities, and society's perception of voters with disabilities.

RESEARCH FINDINGS

One of my key findings was that the United States, in spite of its failure to ratify CPRD, has more developed and mature national disability laws compared to ASEAN members states, which have ratified the disability convention but have yet to align their national and local laws and policies. In the United States, electoral policies and programs at the federal, state, and county level have received more budgetary and executive support. Although electoral administration and coordination vary across the three levels of government, electoral processes that ensure participation of voters with disabilities have been institutionalized. Moreover, there is stronger participation from people with disabilities in shaping electoral policies and programs in the United States relative to ASEAN. Finally, I found that in both the United States and ASEAN, voters with disabilities are still discriminated against. However, this is more strongly evident in the latter, with the presence of more physical, institutional, and social barriers for voters with disabilities. I am continuing my study by analyzing and synthesizing new insights and data from the 2016 U.S. Presidential election.



Pandit Chanrochanakit

Thailand | 2014

Research Topic:
A Comparative Study of Truth
Investigations in Thailand and ASEAN+3

RESEARCH ABSTRACT

Through my research, I attempted to formulate a critical study of truth investigations in Thailand and a comparative study of truth investigations in international and regional contexts. The forming of truth commissions has become the international approach to cope with regional conflict and violence. I explored international interventions to political violence and how truth commissions responded to the need for truth and national reconciliation. Additionally, I explored the Thai experiences of truth commissions and investigations. I attempted to find a systematic and optimal truth investigation method in respond to increasing political conflict and violence in both domestic and regional levels.

RESEARCH FINDINGS

My study of truth investigations in Thailand revealed a problem in their approach. First of all, truth commissions tend to neglect the process of achieving facts and conducting interviews. The integrity of information management and data analysis of the political conflict and violence are concerning. The bodies of truth commissions are mostly appointed by the government, whose was a part of the political violence to begin with. Based on international experience, post-conflict regime change is one of the most important factors in determining the success of truth commissions. Since the commissions lack public participation, the body and its investigation are far off from a victim-centered approach. Second of all, truth commissions are under intense pressue to conduct their investigations and to give a recommendation for national reconciliation, and tend to get overwhelmed by the lack of resources and high level of public attention. Regional experience suggests that international intervention is the most crucial factor as far as putting pressure on post-conflict reconciliation and ensuring a peaceful transitional period. My finding concludes that in order to be effective and successful, future truth investigation processes and the selection of truth commissions should focus more on a victim-centered approach.



Nlin Arya

Thailand | 2014

Research Topic:
Entomotoxicology and Wildlife Forensics

RESEARCH ABSTRACT

Post-mortem degradation of a carcass may destroy organs and other samples that may be used to determine the level of toxins in a body. Fly larvae that have fed on a decaying carcass may also ingest the toxin. I conducted my study to determine the viability of using fly larvae as a sample for toxicology. I collected fly larvae at the 2nd instar stage and separated it into 3 groups according to food type: negative control (organic kidney), muscle from a euthanized cat, and liver from a euthanized cat. I collected and froze at least four larvae from each group every other day. At day 7, all larvae and pupae had been collected and frozen. Each sample of larvae and pupae was soaked in dichloromethane for 3 days to extract the pentobarbital. Pentobarbital was measured using GC/MS in SIM mode. Results showed that a high level of pentobarbital can be detected in 3rd instar larvae, but not in pupae. Additionally, I analyzed larvae that had been collected from previous NFWFL poison cases (2011-2013). Strychnine was detected in fly larvae by these methods, but carbofuran and organophosphates were not.

RESEARCH FINDINGS

My research results showed that fly larvae can be used as appropriate samples for toxicological analysis in suspicious strychnine or barbiturate cases. Sample preservation and the developmental stage of the fly are important considerations. My research was proof that we only need 2-3 maggots from a carcass to identify the toxin that poison dead wild animals. Through this study, I have broadened my knowledge of wildlife disease investigations and wildlife forensics. I conducted numerous lectures to veterinarians and forest ranger officers, and networked with experts in my area of work, and met fellow Fulbrighters from every part of the world.



Ngan Ha To

Vietnam | 2014


Research Topic:
Professional Development Activities for
ESL/EFL Teachers in Vietnam's Schools

RESEARCH ABSTRACT

Vietnamese high school teachers have to participate in many so-called professional development activities such as model teaching, annual experience sharing, or teaching competitions. Unfortunately, these activities do little to improve their teaching capacity. As a part of the National Foreign Languages Project, many teachers have been able to take professional development courses, ranging from language skills classes to teaching methods courses. However, there has been a number of challenges that restrain the project's expected outcome. The first problem is about the timing of the courses, which take place intensively for 1-2 months during summer time. The second problem relates to the practicality of the course contents, which focus mostly on theory instead of the practical issues that teachers have to face daily. My research focused on identifying the activities that are most commonly used by American English as a Second Language (ESL) teachers, and assessing the applicability of those activities in Vietnamese teaching context. I also presented a set of practical solutions and activities for professional development for Vietnamese ESL and English as a Foreign Language (EFL) teachers.

RESEARCH FINDINGS

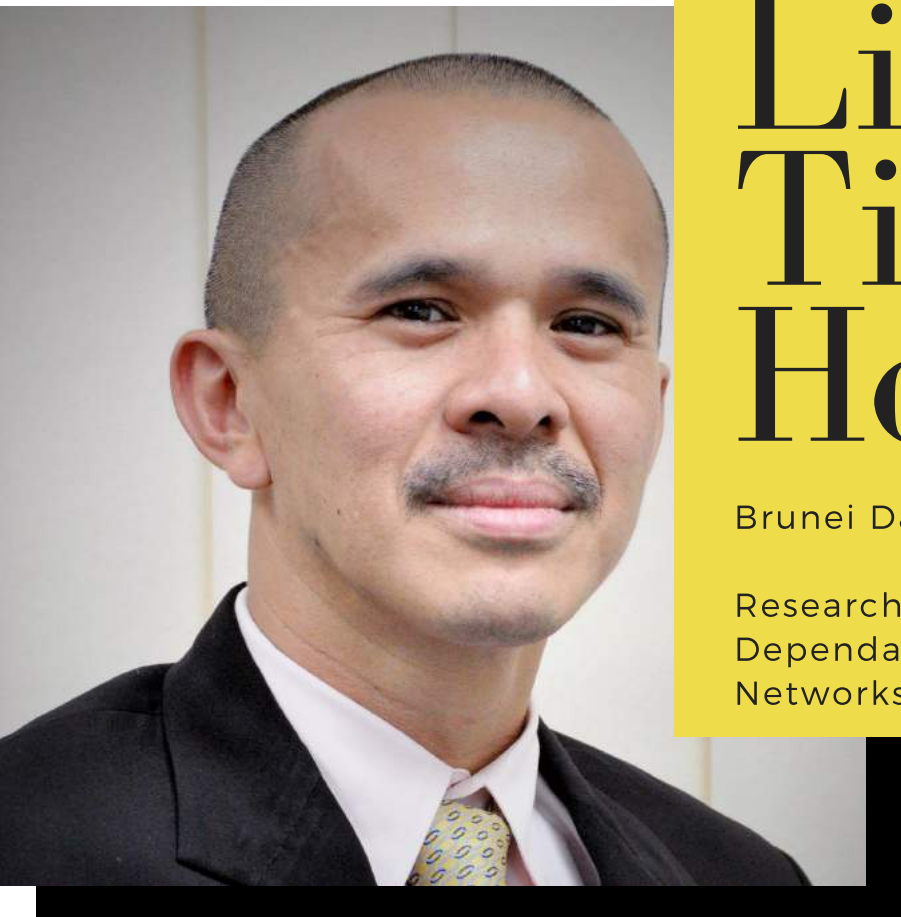
Good professional developments activities should not be a top-down process. Effective activities should be practical, collaborative, long term, and empower teachers to make positive changes. Their results should be visible in the short-term. Teachers who are busy earning for their living are not patient enough to wait for years to see positive results. The most effective professional development activity is collaborative action research. Action research can help teachers improve their teaching practices immediately because their teaching will be both informed by research and their own practical experience. Teachers will gain a sense of achievement by seeing the improvement in their students' results or feedback. It is conveniently conducted in local schools with little training. Teachers can work in groups to learn from each other. If planned properly, it is not time consuming yet has great positive effect on their teaching. In order to help teachers actively do action research, university colleagues can work closely with school teachers during the first stages.

A vertical image of a night sky. The Milky Way galaxy is visible as a dense band of stars and dust, stretching diagonally from the bottom left towards the top right. A bright, white meteor streaks diagonally across the center of the image, from the bottom left towards the top right, leaving a long, glowing trail. The sky is a deep blue with many small, distant stars. The bottom of the image shows a dark, silhouetted horizon line.

**"OF ALL THE JOINT
VENTURES IN WHICH WE
MIGHT ENGAGE, THE MOST
PRODUCTIVE, IN MY VIEW,
IS **EDUCATIONAL
EXCHANGE.****

**I HAVE ALWAYS HAD GREAT
DIFFICULTY SINCE THE
INITIATION OF THE
FULBRIGHT SCHOLARSHIPS
IN 1946, IN TRYING TO FIND
THE WORDS THAT WOULD
PERSUASIVELY EXPLAIN
THAT EDUCATIONAL
EXCHANGE IS NOT MERELY
ONE OF THOSE NICE BUT
MARGINAL ACTIVITIES IN
WHICH WE ENGAGE IN
INTERNATIONAL AFFAIRS,
BUT RATHER, FROM THE
STANDPOINT OF FUTURE
WORLD PEACE AND ORDER,
PROBABLY THE MOST
IMPORTANT AND
POTENTIALLY REWARDING
OF OUR FOREIGN-POLICY
ACTIVITIES."**

WILLIAM J. FULBRIGHT



Lim Tiong Hoo

Brunei Darussalam | 2015

Research Topic:
Dependable Analysis of Wireless Sensor
Networks for Intelligent Traffic Systems



RESEARCH ABSTRACT

Understanding the nature and causes of road traffic congestion is a prerequisite for developing transport management plans, policies and solutions. Given recent advances in wireless hardware technology, it is possible to combine wireless sensor communication and innovative evolutionary learning algorithms in "Internet of Things" deployment, in order to allow a system to learn about the road environment and to take appropriate decisions automatically. Through my research, I analyzed the different types of disruptions that can cause traffic congestion. I investigated how individual vehicles with wireless nodes installed in them can be used as carriers to propagate disruptions information across the road networks. Based on the data received, the systems are then able to detect and plan alternative routes to avoid congestion areas. This leads to less congestion, less travel times, less carbon emissions, and creates a greener environment. I proposed an autonomous system to detect and avoid congestion areas, and tested it using data collected from different cities. The results from my research can help urban city planners and policy makers in ASEAN to address traffic congestion issues and develop more effective and efficient traffic systems.

RESEARCH FINDINGS

Early detection of congestion and classification of disruptions can help minimize the impact of the disruption. My linear regression analysis showed that traffic congestion can be classified by the causes: planned disruption and unplanned disruption. I found that about 35% of observed congestion is due planned disruptions. The impact of congestions caused by planned disruptions is 30% lower than the impact of unplanned disruptions; since planned disruptions are usually known in advance, road users are able to avoid the disrupted area. To analyze the effects of unplanned disruptions, I further categorized it into recurrent and non-recurrent factors. I found that the congestion impact factor doubles if the unplanned disruption is due to non-recurrent factors such as accidents, building fires, roadwork, special events, or strikes. Simulated results from my traffic model showed that early detection of congestion can be achieved using a cluster-based aggregation algorithm. The results showed a significant reduction in travel time. Additionally, the impact of the congestion is also reduced by 20%, as road users are able to avoid the congested area based the aggregated information propagated across the road networks. My research findings can be valuable for transport policy evaluation and appraisal in the ASEAN region.



Sophany Phauk

Cambodia | 2015

Research Topic:
Cambodian Biodiversity of Leaf and
Treehopper (Membracoidea): From
Education Exchange to Advanced
Scientific Research Merit

RESEARCH ABSTRACT

Membracoidea (leafhoppers and treehoppers), a superfamily of approximately 22,000 exclusively herbivorous insect species, are an important component of biodiversity in nearly every terrestrial habitat, including both natural and agroecosystems. In terrestrial insect communities, they are among the most abundant herbivores, providing food for many vertebrate and invertebrate insectivores and playing major roles in insect community organization and ecosystems. In Cambodia, membracoid remain largely understudied, which was the focus of my research. The objectives of my study were as follows: identify species of Cambodian Membracoid specimen collected from every habitat site from 2013-2015; address the species diversity of Cambodian insect fauna; identify the diverse insect species that are critical agricultural pests, and apply the technical application to pest management and control; develop an interactive online key to Cambodian membracoid; develop a Cambodian Membracoidea guidebook and a course curriculum of general and applied entomology for the next generation of Cambodian researchers.

RESEARCH FINDINGS

Using high-resolution imagery with a research-advanced microscope, I identified a total of 75 Cambodian morphospecies, 68 of which were leafhoppers. I developed a website database of membracoids (www.cambodianentomology.org) to catalog these findings. The full guidebook is still under development as an ongoing project, with specific keys and references remaining to be identified. I believe my research will be valuable for future studies of entomological research and agricultural studies in Cambodia. I am grateful to the Fulbright Visiting Scholar Program and the Illinois Natural History Survey for supporting my project.



Abubakar Eby Hara

Indonesia | 2015

Research Topic:
ASEAN Intergovernmental Commission
on Human Rights (AICHR): a Regime
Analysis



RESEARCH ABSTRACT

ASEAN Intergovernmental Commission on Human Rights (AICHR) was established in October 2009 and has been criticized for failing to protect human rights in the region. In my paper, I argue that AICHR needs to be looked at from a different perspective: as an attempt by human rights actors to establish an ASEAN human rights regime. Through this regime perspective, the stages of AICHR can be compared to more established regional human rights commissions in the European Union (EU), Organization of American States (OAS), and the African Union (AU). AICHR is still behind and can be considered to be a promotional human rights regime. It has passed the stage of a declaratory regime, but has not yet entered the stage of an implementation or enforcement regime. Further efforts from human rights proponents are necessary to nurture the awareness of ASEAN leaders to have stronger moral commitments and leadership to promote human rights in the region.

RESEARCH FINDINGS

AICHR has no strong mandate to protect human rights. It is a consultative body that takes into account the sovereignty of all members. ASEAN also does not have a tradition of blame. In this situation, one cannot expect much, because the ASEAN decision is still in the hands of the elite who dominate policy-making. At its current stage, human rights bodies should continue to promote human rights, which may eventually lead to the creation of broader protection forces that accommodate individual claims for human rights violations. One of AICHR's most important tasks is to raise public awareness of human rights through research, which can be undertaken by conducting research on large-scale violations of human rights. It is part of the function of obtaining information from member states in the field of human rights protection, as outlined in its Terms of Reference. Despite its limited abilities, there are ways to make AICHR survive in the future. The role of non-governmental organizations and academics is critical as they continue to their criticism on ASEAN leaders who commit human rights abuses. They can use media and findings to create public awareness of human rights abuses in ASEAN countries.



Souksamone Pathammavong

Lao PDR | 2015

Research Topic:
The Role of Land Lease and Concessions
for Sustainable Development in Laos



RESEARCH ABSTRACT

My research focused on studying investment in land development and its influence on changes in poverty and environment in Laos. I explored potential ways of land management and their impacts on natural resources. In some cases, investment in land can positively intervene with the downward spiral and lift people out of poverty, while reducing the destruction of the environment. In other cases, unplanned land management can lead to the destruction of natural resources and make the rural poor worse off. Generally, investments in land development can do well under the right management and with good consideration of the culture and local livelihoods. Hence, it is essential to understand in more depth the different ways of investment in land concessions for foreign, local, small- and large-scale investments. My primary objective was to understand the various ways of land investment to achieve sustainable development in Laos. I examined the implications of turning land into capital through private sector investment, and its influences on poverty reduction and environmental sustainability.

RESEARCH FINDINGS

Historical data on size, location, and nature of land concessions in Laos is limited. Data sharing and data management methodologies at district, provincial, and national levels are unclear and not successive. In reality, land concessions have been and are still being awarded with little consideration for their social, economic and environmental impacts. Enhancing institutional capacity is necessary to strengthen the abilities of responsible staff to issue land concessions following a set structure. It is also crucial to have a set legal framework and law enforcement of the existing laws in the land sector. As far as reducing poverty, the implications of turning land into capital for the private sector needs to take into account the capacity of the sector to provide social protection measures, capacity to enforce sanctions against poorly performing concessions, data management capacity, and level of coordination, communication and civic engagement. It is important to explore land management methods for enhancing local benefits and meeting national economic development priorities. My study was mainly based on secondary sources (data reviews and literature); an in-depth future study based on primary sources (interviews with locals, government institutions and other stakeholders) is necessary to draw complete conclusions.



Mazlan Binti Othman

Malaysia | 2015

Research Topic:
Science & Technology Policy-Making in
the U.S. Government: Lessons for
Malaysia

RESEARCH ABSTRACT

Many of the policies related to Science and Technology (S&T) in Malaysia have had poor success in terms of implementation. My research objective was to study policy-making in the U.S. government that has produced successful outcomes, with a focus on policy-making pertaining to space. I attended post-graduate level lectures on Space Law, interacted NASA top officials, congressional and White House staff, and studied the process of producing Decadal reports on various S&T matters. I gained sound insights into the policy-making process and a new perspective on how the Academy of Sciences Malaysia (ASM) should position itself vis-a-vis how it provides advice and contributes to the policy-making process and implementation.

RESEARCH FINDINGS

I attended the Science, Space, and Technology Congressional Committee hearing on NASA public-private partnerships in commercial remote-sensing, and learned that this kind of hearing was typical of the way the Committee obtains its information for decision-making. The committee members' level of intellectual exchange and technical understanding was impressive. I learned that with any new administration, the new president has at their disposal over 8,000 federal civil service positions in the legislative and executive branches of the federal government. This is the real secret to the success of the implementation of the President's policies. I studied documents detailing NASA's responsibilities at various stages of policy implementation. I found the granularity of the details staggering, reflecting the immense level of planning in terms of financial and technological deliverables. Through my study of the process of producing Decadal reports, I found them to be indispensable, as U.S. congress looks on them as critical for decision-making. I recommend that instead of equating itself to a think tank, the Academy of Sciences Malaysia should strive to strengthen its position as the country's foremost academy.



Toe Toe Aung

Myanmar | 2015

Research Topic:
The Role of Mangrove and Wetland
Ecosystems in Climate Change
Mitigation and Coastal Protection

RESEARCH ABSTRACT

Myanmar, with its long coastline, possesses approximately one fifth of the combined coastal length of the Bay of Bengal. According to the Munich Re's 2015 Global Climate Risk Index, Myanmar ranks as the second most climate change affected country in the world. Its unprotected coastlines are frequently threatened by tropical storms that develop in the Bay of Bengal during the monsoon season. Moreover, half of Myanmar's population lives on the coast and in deltas. Hence, climate change and its adverse consequences are a paramount concern for maintaining and securing the livelihoods of coastal communities in Myanmar. As one of the critical coastal ecosystems, mangrove ecosystems play a significant role in mitigating climate change and coastal protection. The 2004 Indian Ocean Tsunami that hit the Bay of Bengal region clearly demonstrated how mangroves can play a role in securing the lives and livelihoods of coastal people. Therefore, I focused my research on exploring the role of mangroves in climate change and coastal protection.

RESEARCH FINDINGS

My research paper "A Coast Without Mangroves? Lessons on Climate Change Mitigation and Coastal Protection" was published in COAST journal. In my paper, I highlighted that recent observations show comparatively high carbon storage in the vegetated mangrove ecosystem, which plays a vital role in climate change mitigation. However, mangroves have been in decline at an alarming rate, especially in the ASEAN region. Although ASEAN is the hub of mangroves, the existence of biodiversity-rich mangroves is under threat. Mangrove wetlands deserve urgent attention for conservation and restoration. With my publication, I aim to inform policy and decision makers in the Bay of Bengal region and ASEAN about the significant coastal protection function of mangroves, as well as their role and value in climate change mitigation and resilience building. I also conducted additional research about the importance of coastal mangroves on water quality at Naples Bay in Florida, which is in progress to be published soon.



Leslie Advincula-Lopez



Philippines | 2015

Research Topic:
The U.S. - Philippines Defense
Cooperation: Gains and Challenges

RESEARCH ABSTRACT

The longstanding bilateral military relations between the Philippines and the United States are characterized by hits and misses. Despite perturbations in the aftermath of the 1991 cancellation of U.S. bases, these relations can be characterized as having a semblance of continuity. The Philippines Supreme Court decision in January 2016 to uphold the legality of the Enhanced Defense Cooperation Agreement (EDCA) between the two countries was a critical juncture. While there is an implicit acceptance that these exercises have been beneficial to the Philippine forces, there has been no systematic attempt to broadly analyze and evaluate the outcomes of defense cooperation between the Philippine and U.S. forces throughout the years. My paper addressed the following questions: To what extent are the broad objectives of upgraded professional skills, interoperability capability and upgraded regional security cooperation actually achieved throughout these years? Given the unique though somehow connected objectives of the joint military exercises between Philippine and U.S. forces, what are some of the actual challenges and gains that were achieved in the more than fifty years (1951 to 2014) of formal defense cooperation between the Philippines and the United States?

RESEARCH FINDINGS

The decades-long military relations between the Philippines and the United States, with the renewed interest to forge closer military ties, is a critical juncture for both countries. From a historical-institutionalist perspective, the confluence of international and domestic socio-political developments opens a space for the militaries of both countries to redefine their long-standing relations, and to reexamine the strengths and weaknesses each party can contribute to the military equation within the region. It will be difficult to stop the momentum that defined the earlier character of Philippine - U.S. relations. However, these bilateral relations, including military ones, do not necessarily have a locked-in mechanism that hinders the possibility of a redefinition. At this critical juncture, there is a certain amount of fluidity, a sort of relaxation in the rules of the game that can be utilized by militaries of both countries to recalibrate the terms of their relations with one another. While both the Philippines and the United States are preoccupied with similar global security issues and share a lot of common security interests, each country should be guided by their own unique national interests. The Philippines, for one, should be able to translate its existing national security policy into a set of more specific short and long term national targets, in order to effectively integrate its military and civilian development agenda.



May Oo Lwin

Singapore | 2015

Research Topic:
Socially Mediated Systems for Disease
Surveillance, Engagement and
Communication

RESEARCH ABSTRACT

My research was part of a long term endeavor to provide timely health information to communities in developed and developing countries via social media based systems. I deduced that two types of diseases should be the priority focus in Asia: air-borne and vector-borne infectious diseases. I uncovered a need for a real-time diseases reporting system to improve health literacy levels in developing countries. To meet this need, I developed a cohesive base system that integrates and streamlines three main components: predictive mapping, civic engagement, and health education. This system transforms a disparate contingent of tools that the health workforce and the general public must use today, into a holistic, easily usable, mobile-based interface. It optimizes the capabilities of social media, allowing users to participate and share information – a capability that has thus far been underutilized in the global health space.

RESEARCH FINDINGS

I conceptualized and planned an influenza prevention system for healthcare workers in Singapore, named FluMob and FluTAC. The influenza system, launched in 2016, is among the first studies to employ the trans-disciplinary lens of peer influence, media effects, and technological adoption. It enables users to report acute respiratory symptoms including as influenza-like illnesses on a weekly basis. With the health communication systems for disease surveillance, I identified facilitators and barriers to the social acceptance of the social media system. My research has informed how to improve existing systems deployed in Sri Lanka and how to design the flu system in Singapore, both of which could extend to other Asian countries or other similar diseases, such as Zika. I garnered the key theory and policy implications to both health and risk communication, and developed empirically validated theoretical frameworks. My findings have contributed to research, conference papers, talks, and workshops in the United States and in Asia. Aside from advancing academic knowledge, my research has also been useful to public health authorities, policy-makers, hospitals, and schools who are involved in tracking the spread of infectious diseases domestically and internationally.



Suvaluck Satumanatpan

Thailand | 2015

Research Topic:
Factors Influencing the Well-being of
Small-scale Fishers in the Gulf of
Thailand

RESEARCH ABSTRACT

In my research, I examined the factors that influence the well-being of small-scale fishers in the Gulf of Thailand. 632 small-scale fishers at 21 fish landing areas along the coast of Rayong Province were interviewed. Data concerning respondents' background information, perception of job satisfaction, resilience, conservation beliefs, environmental ethics, well-being, and landing area were collected. I used multivariate statistical analyses to assess factors that influence perceptions of environmental as well as individual well-being. I found that basic needs and self-actualization are two significant variables for fishers' well-being. Fishers in areas with industrial pollution or in major urban communities are less satisfied with the environment. Similarly, fishers who are concerned about the importance of the environment and are members of their province's fishery association have lower levels of environmental well-being. Fishers who feel they have the ability to get work elsewhere, or who manifest a higher level of resilience are happier with their lives than those with lower resilience. My findings offer several practical findings that, if applied, will contribute to sustainability of fisheries in Thailand and similar locations.

RESEARCH FINDINGS

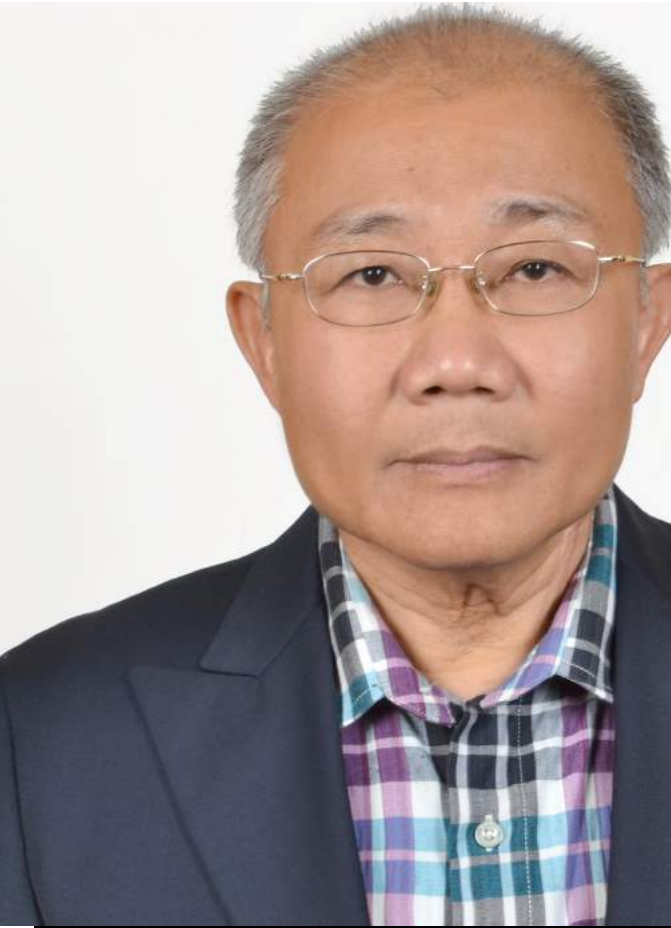
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"This program will certainly go a long way in enhancing educational opportunities for ASEAN scholars. And it is noteworthy that through this program, US scholars also have opportunities to study and research issues related to our region."

H.E. HIRUBALAN VP

Deputy Secretary-General of ASEAN for
ASEAN Political Security Community





Teng Leong Koay



Brunei Darussalam | 2016

Research Topic:
Inclusive Education in ASEAN Countries:
Concepts, Legal and Policy Frameworks,
Initiatives and Provisions, Best Practices,
Challenges and Future Directions

RESEARCH ABSTRACT

The goal of my study was to develop an explanatory framework on policy and practice in developing inclusive schools in ASEAN nations. I investigated the similarities and differences towards inclusive education in Brunei, Malaysia and Thailand. I evaluated the three countries based on the following factors: alignment of concepts of inclusive education; emergence of systemic structures, legal frameworks and policies for supporting inclusive practice; key practices to foster inclusion; challenges and barriers to inclusive practice; future plans and goals for developing inclusive systems and practices; patterns of governance, cultural, funding and educational systems associated with inclusion.

RESEARCH FINDINGS

The output of my study is the development of a regional framework that provides a comprehensive explanation for the different domains of inclusive practices relevant to its people, culture, and system. I will serve as an important guide for ASEAN member countries for the betterment and successful implementation of inclusive education. A desired outcome of my research effort is to enhance academic collaboration and partnership between the United States and ASEAN, specifically between University California Santa Barbara, University Brunei Darussalam, University Malaya, University Perguruan Sultan Idris, University of Chulalongkorn, and a regional partner, the South East Asian Ministers of Education Organization Centre for Special Education (SEAMEO-SEN).



Sokha Kheam

Cambodia | 2016

Research Topic:
Cambodian Biology Education
Development: Co-Teaching, Curriculum
Development and Scientific Research

RESEARCH ABSTRACT

Co-teaching, biology education curriculum development, and biology education research are important areas of focus for biology education development. Little is known about education methods that work well in a Cambodian context. In particular, there exists little published research that examines the benefits of inquiry instruction to improve biology education quality at the undergraduate level in Cambodia. My research was focused on learning about the various methods in order to make a valuable contribution to Cambodian undergraduate biology education. I engaged in co-teaching environments in the United States that utilize inquiry based instructional approaches. I conducted interviews with biology curriculum designers and developers, and compared and contrasted American undergraduate biology curricula with Cambodian undergraduate biology curricula. I also gained insights into discipline-based education research (DBER) in a real classroom setting.

RESEARCH FINDINGS

In the area of co-teaching, I found that general biology laboratories are co-taught by the professor and the teacher's assistant (TA). Laboratory management is handled by course coordinators, including TA recruitment and training. The new 5Es teaching model (Engage, Explore, Explain, Extend, Evaluate) is commonly used. Critical thinking and scientific writing are widely practiced to develop students' deep thinking skills. The curriculum is well developed by the course coordinator, based on the 5Es model. The basic knowledge and skills that the course aims to provide are clearly defined based on the goals of the university and the job market. A set of course objectives are set and followed through class activities and assignments to ensure students accomplish them. The designed curriculum is applied well to the actual classroom setting through active learning methods. I found DBER to be a very insightful course, where research design, data collection methods, and data interpretation were well discussed and practiced.



Halikuddin Umasangaji

Indonesia | 2016

Research Topic:
Petroleum Hydrocarbons in Coastal
Sediments in North Maluku, Indonesia

RESEARCH ABSTRACT

My research was focused on answering the following question: Do petroleum hydrocarbons exist in coastal sediments following the 2013 of Patriot Andalan spill in Ternate Island, North Maluku, Indonesia? Signatures of hydrocarbons within surface sediments at the accident site were detected using the Gas Chromatography - Flame Ionization Detector technique (GC-FID). Despite weak signals, naphthalene, phenanthrene and fluorene were found as the important compounds in this area as species of polycyclic aromatic hydrocarbons (PAH). Saturated hydrocarbons such as fatty acids, sterane and hopan were also identified in a very weak signal. The presence of PAHs is still questionable as to whether they are derived from the oil spillage or others sources such as traffic, industrial or other combustions. It is alleged that weathering has occurred after three years of the spill, as a result of several processes such as evaporation and dissolution from tropical high temperature. We found low signal of n-alkane, two and three rings of aromatics compounds. These are the low molecular weight (LMW) oil compounds that disappear within the initial days of spillage.

RESEARCH FINDINGS

My study was unable to reveal any significant levels of diesel fuel contamination in the samples, especially the ones furthers from the spill site. Hydrocarbons still appeared at the furthest stations, indicating that these came from other sources such as industry activities, ship and boats, as opposed to the oil spill. Given the degradation of the oil, and considerable time that had elapsed between the spill and my study, the true spatial extent of the contamination will never be fully understood. In future uncontrolled releases, sediment samples need to be collected immediately after a spill and include all the alkylated PAHs in sediment analysis, so that reasonable sediment guidelines can be applied.



Kemal Taruc

Indonesia | 2016

Research Topic:
Exploring Resilience: Towards a New
Urban Agenda

RESEARCH ABSTRACT

I researched the relevance of urban resilience to urban development practices for disaster preparedness and public safety, as evidenced by experiences and actions of urban communities and public institutions both at the national and local levels. Through my study, I aimed to gain a comprehensive, coherent, and cross-disciplinary understanding of resilience as an emergent issue in urban development. I explored the conceptualization of field evidence and contemporary practice of resilience actors in communities and cities. My particular focus was on Greater Jakarta's scenarios of flood risk in the coming decades. This emergent crisis of flooding is connected to a range of issues: urban development, land use change, groundwater extraction, land subsidence, and climate change induced sea level rise. Each of these issues has its roots in a complex mix of socioeconomic, geographic, and political dynamics.

RESEARCH FINDINGS

It is increasingly apparent that there can be no single solution to the issue of flooding. This problem requires many different solutions, including not only the development of new infrastructures of resilience, but also regulatory, legal, and governance reform, new approaches to watershed management of the greater urban areas, land use planning, as well as community-based approaches to flood adaptation and mitigation. Identifying new approaches to flood mitigation and adaptation requires a strong understanding of the broad range of factors driving the crisis of flooding. Many of the causes of flooding have a variety of dimensions. To fully understand these causes, we must therefore take an interdisciplinary research approach. Such interdisciplinary research requires input from a range of stakeholders, including communities, non-governmental organizations, government, and academia.



Siliphaithoun Xayamoung- khoun

Lao PDR | 2016

Research Topic:
Human Trafficking Challenges in
Northern Laos

RESEARCH ABSTRACT

Laos is a signatory country where many international conventions have taken place over the last 10 years on fighting against human trafficking. The government has received huge support from international donors and has been cooperating with bordering countries regarding the issue. However, supply and demand continue to play an important role, superceding any interventionist measures. China and Thailand are the main destination countries for human trafficking. Unfortunately, there have been no new studies focusing on human trafficking in northern Laos. Cases of forged marriages between Lao women and Chinese men go unreported. The demand for Lao brides is rampant in China, as complex Chinese administrative regulations have caused a women shortage. Legal instruments in Laos and China are both under development, without a clear mechanism from either side for immediate action. My study aimed at understanding the problem and documenting findings for possible solutions that Lao and Chinese key players may consider. It is a first step into future concrete cooperation in the region on the issue of human trafficking.

RESEARCH FINDINGS

My research findings allows us to have the blueprint for constructing a large scale waste water treatment plant, which is applicable for any large city. This conceptual technology will allow us to meet the environmental water quality standard, to secure the water resource by treating the polluted water with bio-based treatment, and to contribute to bio-energy from harvesting micro-algae. This concept will be useful for major cities in Cambodia as well as other ASEAN members states, and will be help secure our inland-water resources.



Norhayati Abdullah

Malaysia | 2016

Research Topic:
Industrial Wastewater Treatment:
Palm Oil in Malaysia

RESEARCH ABSTRACT

The generation of palm oil mill effluent (POME) alongside the production of crude palm oil has created environmental issues for the palm oil mill industry in ASEAN countries, particularly Malaysia and Indonesia. Although the expansion of palm oil industry has boosted the Malaysian economy, it has also generated wasteful by-products such as POME, which is a threat to the environment if directly discharged to the watercourse. POME could become one of the promising sources for renewable energy in countries like Malaysia and Indonesia if it were treated in a more efficient closed anaerobic digester system to produce and capture the valuable methane gas, also known as biofuel. At present, most existing research is focused on improving methane production. However, there is no proper evaluation done on the potential of methane recovery from POME treatment. With my research, my aim is to contribute to a greater understanding of the conditions for palm oil emissions and bioenergy potential in Malaysia.

RESEARCH FINDINGS

I pursued three main questions in my research: to which extent and how palm oil in Malaysia contributes to improving the environmental performance of the palm oil industry via carbon emission strategy; what are the opportunities and barriers that have hindered its development towards sustainable production of palm oil; and investigation on nutrient management for anaerobically treated POME. My project was timely to support the country's aim of improving sustainability of palm oil production and reducing its carbon footprint. Harnessing energy in the form of methane is obligatory to demonstrate the commitment and support for a reduction in greenhouse gases emissions in Malaysia. Every element of the process should be monitored and stakeholders' engagement is also important for sustainable production of palm oil to be achieved. Increasing interest in anaerobic digestion must be well supported with scientific understanding on microbiological stimulation to enhance methane production.



Khin Mar Myint



Myanmar | 2016

Research Topic:
Study on Quality Management System,
the Standards of Accreditation and
Medical Education Program in the
United States

RESEARCH ABSTRACT

Myanmar is in a process of reform on its journey to democracy. Myanmar National Education Law was enacted in 2015 to reform the country's outdated education system. Quality assurance in achieving world recognised accreditation standards in education has become a national mandate. Educational programs, quality of educational resources, and evaluation of student achievements are all in need of modification to meet internationally recognised standards. Today, all medical universities in Myanmar are under the management of a central body. All use the same traditional subject-based curriculum, instead of the outcome-based curriculum that is the global standard. Furthermore, quality management and accreditation systems need to be revamped. The goal of my project was to contribute to Myanmar's medical education reform process by closely studying the medical education system in the United States.

RESEARCH FINDINGS

I found the student selection process to be the most important factor in building a successful medical education system. Recruiting students who possess the necessary prerequisites, and who are committed to the medical profession with a positive attitude is paramount. This has been successfully integrated into the U.S. system, while it is lacking in Myanmar. In the United States, the Office of Medical Education manages educational programs via curriculum coordinating committees and subcommittees, with feedback from individual course directors. Student record keeping systems, electronic data bases, and student admission processes are very advanced compared to Myanmar. All medical schools' educational programs and curriculum must be accredited by the Liaison Committee on Medical Education (LCME), and jointly administered by the Association of American Medical Colleges (AAMC) and the American Medical Association (AMA). For graduate medical education programs (residency and fellowship), the Accreditation Council for Graduate Medical Education (ACGME), a non-profit organization, monitors accreditation standards. In Myanmar, Myanmar Medical Council might be a potential accreditation organization for all medical schools' educational programs.



Sithu Pe Thein

Myanmar | 2016

Research Topic:
Civil-Military Coordination in
Humanitarian Assistance and Disaster
Relief in the United States

RESEARCH ABSTRACT

U.S. military forces have been a major participant in Humanitarian Assistance and Disaster Relief (HADR) operations in virtually all natural disasters across the world, particularly in the disaster-prone Asia Pacific region. It is therefore important to understand how U.S. forces prepare themselves for HADR operations, as findings could then be replicated by other armed forces in the ASEAN region, particularly countries like Myanmar. The Regional Consultative Group (RCG) on Humanitarian Civil-Military Coordination for Asia and the Pacific identified Myanmar as one of the five priority countries in the region. This is because civil-military coordination and HADR components of preparedness measures are not properly in place in Myanmar, compared to the other four countries of Bangladesh, Nepal, Indonesia and the Philippines. I focused my research on understanding U.S. forces' civil-military coordination and HADR readiness, and its potential applications to Myanmar.

RESEARCH FINDINGS

I found that the leading role U.S. military forces play in HADR operations is not necessarily constituted by, as one would guess, specific in-class training or workshops. Most of their HADR knowledge and skills come from the unique skill sets they use in their daily operations, and their general military education, which they leverage in HADR situations. This finding is very important for Myanmar, indicating that even though Myanmar armed forces never receive specific HADR training, their military education and the skills are transferable to HADR operations. Another key finding was that HADR operations where U.S. forces are engaged are always civilian-led. All overseas HADR operations launch at the U.S. Ambassador's request. Office of U.S. Foreign Disaster Assistance (OFDA) and U.S. Agency for International Development (USAID) usually take leading roles, bringing in their vast experiences of humanitarian assistance and relief. These humanitarian assistance experts from OFDA/USAID work in close collaboration with a joint task force, allowing U.S. forces to conduct HADR missions more efficiently. Hence, efficiency of civil-military coordination is a key component for the success of HADR operations, and should be replicated in Myanmar.



Renato Cruz De Castro

Philippines | 2016

Research Topic:
The United States' Strategic Rebalancing
to Asia: Quo Vadis?

RESEARCH ABSTRACT

My research had two primary objectives: to examine whether the rebalancing to Asia has achieved its goal of shifting American strategic attention and resources away from the Middle East and South Asia onto the Asia-Pacific region; and to determine whether the strategic rebalancing to the Asia-Pacific will continue beyond 2016. In my research, I also sought answers to the following related, key questions: What was the origin of this policy? How was the strategic rebalancing to Asia implemented by the Obama Administration? How did China view and respond to the strategic rebalancing to Asia? How did American allies view and respond to the strategic rebalancing to Asia? Has the strategic rebalancing achieved its primary goal of constraining China's expansionist agenda in maritime East Asia?

RESEARCH FINDINGS

From 2011 to 2016, former President Barack Obama vigorously pursued the policy of strategic rebalancing to Asia. This policy involved the following: building up U.S. forward-deployed forces in the Western Pacific; strengthening American bilateral alliances; forging security partnerships with other East Asian countries; heightening U.S. participation in regional organizations; and ensuring U.S. leadership in the global economy through the proposed Trans Pacific Economic Partnership (TPP). The underlying goal of this policy was to prevent China from replacing the United States as the dominant power in the Asia-Pacific region. Unfortunately, the Obama Administration's implementation efforts were thwarted by the strategy's lack of a deterrence component, distracting shifts and crises in other parts of the world, and the failure of the U.S. Congress to pass the TPP into law. President Donald Trump may opt to pursue or take a totally different path. Either way, he will probably heed President Obama's advice that "engaging in the Asia-Pacific is critical to America's future prosperity and security." Yet, it is still early to predict how the new president will approach the rebalancing to Asia to protect American strategic, political, and economic interests in the region.



Michael C. Morales

Philippines | 2016

Research Topic:
The Transformation of West Point and
Lessons for the Philippine Military
Academy

RESEARCH ABSTRACT

The Philippine Military Academy (PMA) – the brainchild of General Douglas MacArthur, military adviser to the Philippine president in the final years of the colonial era – was created in the image and likeness of West Point. Many of PMA's traditions such as the Fourth Class system, the Honor System, cadet uniforms, even cadet slang were borrowed from West Point. While West Point's training process and traditions have evolved over the years, these have remained largely unchanged in PMA. It is held that some of these traditions, particularly the Fourth Class system, have contributed to PMA's "three-headed nemesis" of hazing, mediocrity and growing disregard of honor (De Veyra, 2002). This has led to a high attrition of cadets. Beyond the obvious cost implications, chronic high attrition indicates a systemic problem that hinder the attainment of institution's goals. In my study, I revisited West Point, the origin of PMA's training model, to gain insights on how PMA might improve its leader development process. West Point struggled with the very same problems that continue to bedevil PMA and have overcome them to become one of the top leader development institutions in the world.

RESEARCH FINDINGS

The fundamental change that led to West Point's success was its shift from an attritional to a developmental training paradigm. This was implemented through several initiatives, chief of which were achieving clarity on the purpose of the academy, creation of a formal leader development model, the high priority given to character development, improved training and dedicated role of tactical officers, and careful selection and longer tenure of the academy superintendent. These are valuable lessons learned that PMA can adapt.



Anju Patwardhan

Singapore | 2016

Research Topic:
Use of Technology to Support Financial Inclusion

RESEARCH ABSTRACT

In recent years, a lot of progress has been made in promoting financial inclusion for individuals through basic account ownership but many remain financially underserved. There are two billion unbanked adults in the world with no access to basic services. Several billion more are underbanked; underserved by the financial services industry in areas related to savings, insurance and access to credit. Many of them are financially unhealthy and insecure. Financial insecurity is not just a low-income, bottom-of-the-pyramid problem in the unbanked population. It is an equal-opportunity problem impacting many in emerging markets and nearly half the American population. I focused my research on understanding the issue of financial exclusion and related solutions using financial technologies (fintech). I explored the Silicon Valley ecosystem to determine how it can be applied to Singapore and rest of ASEAN to promote innovation.

RESEARCH FINDINGS

The progress in financial inclusion has been slow but momentum has picked up significantly in the last few years. Technology has become a key enabler for promoting financial inclusion in both developing and developed markets in a commercially viable manner. A consumer financial services revolution is taking place around the globe, powered by mobile phones, technological innovations and changing consumer mindsets. Several countries - particularly China and India - have started harnessing digital financial services as a developmental tool to support inclusive economic growth and reducing income inequalities. Banks are also increasingly realizing that they need a license to operate - not just from regulators, but from society. Forward looking banks are partnering with technology firms to reach those who have been excluded. Governments and regulators also need to be supportive and are pushing for regulatory reforms and innovation. My complete research findings will be published in a fintech book in September 2017. I also used my learnings and proposed solutions and created a non-profit entity called Financial Inclusion Institute (FII) and created a website at www.financialinclusioninstitute.com. This will help create greater awareness about the issues and problems and also help technology companies that want to build solutions in this area.



Chao Rong Phua

Singapore | 2016

Research Topic:
Pragmatism in U.S.-China-ASEAN
Relations: A Singapore/ASEAN
Perspective

RESEARCH ABSTRACT

Despite the existence of rich literature on the subject, U.S.-China relations remains a puzzle for academics and practitioners alike. Potential conflict or cooperation between the two countries depends on the context in East Asia and ASEAN, and dynamic interactions amongst the United States, China and ASEAN. The literature on U.S.-China-ASEAN relations needs a more neutral perspective from ASEAN. Pragmatism, hitherto over-utilized but under-theorized, with its emphasis on "what works", presents a potential panacea to limits of grand theories. In my research, I examined U.S. pragmatism in depth. Leveraging my past research on China and Singapore pragmatism, I applied the concept of pragmatism to U.S.-China-ASEAN relations and South China Sea from a Singapore/ASEAN perspective.

RESEARCH FINDINGS

The United States and China are pragmatic nations for different reasons. China is pragmatic because it was in survival mode arguably as early as its defeat in the 1894 Sino-Japanese war, and China pragmatically sent its students to Japan to learn. Personalities matter a large extent. While Deng Xiaoping was famous for his pragmatic dictum "regardless of colour, a cat that catches mice is a good cat", Mao, less the last decade of ideological fixation with Great Leap Forward and cultural revolution, was pragmatic enough to attain and sustain power. Philosophical pragmatism is America's main contribution to philosophy (Peirce, James and Dewey). There is a certain streak of pragmatism in its cultural fabric touted as frontier mentality to get things done (for survival). That remains strong in today's U.S. corporate culture of a no nonsense spirit to get things done and their resultant corporate excellence globally. While personalities (Presidents) matter, the enshrined checks and balances cushion the latitude against extremes; ideologue and pragmatist presidents tend to be moderated to an unseen golden mean by pluralism of its political system.



Praowpan Tansitpong

Thailand | 2016

Research Topic:
An Investigation of Medication Process
from Large Electronic Medical Records
(EMRs): Operations and Welfare
Development Approach for ASEAN
Community

RESEARCH ABSTRACT

Electronic medical records (EMRs) reveal significant potential to access measurements for effectiveness and efficacy of prescription standards. I investigated health benefit schemes among ASEAN countries by focusing on the emerging issue of prescription pattern impacts on health service. I utilized EMRs to explore prescription characteristics, with an emphasis on critical issues such as treatments for chronic disease and opioid prescriptions in the United States and ASEAN. Using descriptive tools and regression models, I analyzed differentiations in prescription data derived from EMRs. One of my goals was to build an awareness of U.S. prescription pitfalls leading to opioid addiction in other developing countries in ASEAN. The results of my study can be used to monitor performance of government administered programs in ASEAN countries such as Singapore, the Philippines, and Malaysia (universal health coverage programs) as well as undergoing programs in Vietnam, Laos, and Myanmar.

RESEARCH FINDINGS

Thailand, Singapore, the Philippines, and Malaysia have made progress by offering affordable health coverage schemes. The schemes share similarities such as health coverage programs for government officers, social security funds, and universal health coverage. Most of the programs' prescription eligibility ties to lists of standardized guidelines in each country. I found that deductible levels as well as number of patients, programs, and brand options have a significant impact on hospital profitability on prescriptions for overall diseases. However, when treating chronic diseases, physicians make prescription decisions regardless of the program, prescription guidelines, or prescriptions costs. On the issue of opioid prescriptions, I recommended developing a monitoring program to mitigate the risk of overdose and abuse cases. The program would draw from a data network of past substance use disorders, amount of opioid dosages, co-usage of benzodiazepine, and co-usage of antidepressant in order to predict tendency for new addiction and abuse cases. I also identified a number of risk factors in existing U.S. prescription practices: physicians can prescribe opioid prescriptions using personal judgment; pharmacists can make adjustment of opioid inventory in the system; assigned caregivers can receive opioid prescriptions on behalf of patients at terminal stage or patients who are remotely located.



Le Thu Ha



Vietnam | 2016

Research Topic:
The Role of ASEAN in Member
States' Territorial Integrity
Protection: The case of US - ASEAN
Cooperation in South China Sea
Dispute

RESEARCH ABSTRACT

My study aimed at examining how ASEAN membership can benefit its member states' territorial integrity. The South China Sea (SCS) dispute is an existing critical threat to many ASEAN countries' territorial integrity. I analyzed the role of the United States, a traditional partner and an influential player in the region, in solving the SCS dispute under the hat of U.S. - ASEAN cooperation. Based on my findings, I recommended a cooperation mechanism between ASEAN and the United States to contribute to solving the SCS dispute.

RESEARCH FINDINGS

My research demonstrated that U.S. - ASEAN cooperation in the South China Sea dispute can give ASEAN states various benefits, including creating a peaceful external environment, providing direct support, and creating a bridge through which member states can attract help from outside ASEAN. This is a mutually beneficial cooperative relationship, in turn giving the United States the ability to maintain its leadership in the region.



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